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SCHWEGMAN LUNDBERG WOESSNER & KLUTH
P O BOX 2938
MINNEAPOLIS MN 55402

EXAMINER

PATEL, J

ART UNIT

PAPER NUMBER

2855

DATE MAILED:

08/30/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

| | |
|--------------------------------------|---|
| Application No. 08/953,154 | Applicant(s) Reith A. Kozak, Charles T. Dammon, Anton R. Pool |
| Examiner JAGDISH PATEL | Group Art Unit 2855 |

Responsive to communication(s) filed on Aug 19, 1999

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-11, 13-18, and 20-28 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-11, 13-18, and 20-28 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on Aug 19, 1999 is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 5 - 1 form

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10-11, 13-18, 20-22 and 24-28, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson et al (US Patent # 4,762,435) in view of Applicant's admitted prior art (page 1, line 15-24 and page 2, line 1-9). The "wherein" clause merely recites functional language, such functional language is not clearly supported by the structural elements in other parts of the claim. In other words, no positive recitation of the structure is given in the "wherein" clause. Richardson discloses a keyboard (12) including a housing (12), a plurality of keys (33, 37) disposed with in the housing (12), a communication link (24, 25) disposed within the housing (12), wherein the communication link is capable of communicating with a computer (10), and a connector (unnumbered) operatively coupled to the communication link (24, 25), the connector (unnumbered) disposed with in the housing (12) and receptive to a corresponding connector of a device (14, 15) such that the device (14, 15) communicates with the computer (10) over the communication link (24, 25) when the connector (unnumbered, keyboard and device connector) are coupled, the housing (12) has a plurality of the

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surfaces (fig 2) defining a cradle cavity (13, 17) into which the connector (unnumbered) is disposed (fig 2), the cradle cavity (13, 17) shaped so that the device (14, 15) fits into the cavity (13, 17) such that at least one surface of the device (14, 15) is exposed (fig 1), the cradle cavity (13, 17) is shaped so that the device fits into cavity such that at least front surface of the device (14, 15) is exposed, the cradle cavity (13, 17) is shaped so that the device fits into the cavity such that at least top surface of the device (14, 15) is exposed, the housing (12) has an end surface into which the connector (unnumbered) is disposed, the connector (unnumbered) of the device (14, 15) coupling the connector of the housing (12) such that at least one of a top and a bottom surface of the device (14, 15) is flush with a corresponding surface of the housing (12, fig 1), the communication link (25, 24) having at least a cable (fig 2). Richardson does not teach specific device. Applicant's discloses in the admitted prior art (page 1, line 15-24 and page 2, line 1-3) a modular PDA device with touch screen communicates with the computer over communication link when device is docked to the computer. Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to use a specific device as taught by Applicant's admitted prior art in place of the modular device of Richardson to provide better communication between the devices in interactive or on-line mode via communication link.

Regarding claims 11, 13-18, 20-22 and 24-28, Richardson teaches devices connected to keyboard, it is noted that Richardson teaches the use of various devices mounted in cradle portions of the computer peripheral. Richardson lacks to teaches the specific device structure as

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claimed. Applicant's disclose in the admitted prior art (page 1, line 15-24 and page 2, line 1-3) a device is docked to the computer or being used remotely (page 2), and in specification (page 6, line 16-21) personal digital assistant device could be a U.S. Robotics Pilot, a telephone handset, a television remote control, etc., as well as other consumer electronics. Applicant's admitted prior art teaches a PDA device including a housing, a touch screen, a controller, a connector, a wireless transceiver, one changeable virtual key, power source, and docked into the computer and mounted in cradle. Therefore, it would have been obvious to one of ordinary skill in the art to mount any known and conventional electronic device in a cradle area with electrical connections in view of teachings of Richardson to provide various feature to the keyboard. There is no unobviousness in any of a number of devices being mounted in cradle portions as exemplified by the variety of known devices applicant lists in claim 16. While Applicant's admitted prior art does not discuss a computer keyboard and rechargeable battery, it is recognized that to provide such components are obvious in the design of the most PDA devices.

Regarding claim 7, Richardson lacks cable is a universal serial bus-compatible cable the universal serial bus-compatible cable used by applicant, however the examiner takes official notice as to the universal serial bus-compatible cable are conventional and well known in the communication art. Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to use a conventional universal serial bus-compatible cable instead of cabling of Richardson for better communication between the devices.

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Regarding claim 8, Richardson teaches the communication link including cable.

Richardson lacks communication link including a radio frequency (RF) transceiver. Applicant's admitted prior art teaches device including a wireless transceiver communicate with computer in stand-alone mode, however the examiner takes official notice as to the types of the conventional data communication link such as a radio frequency, a cable-type arrangement or an infrared data link are well known in the communication art. Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to use a conventional radio frequency transceiver in the communication link of the Richardson to provide better communication between the devices in interactive or on-line mode via communication link.

Regarding claim 10, Richardson does not show the power source disposed within the keyboard housing, however the examiner takes official notice as to the power source disposed within the keyboard housing, it is recognized that the keyboard required a power from internal or external source to communicate with the corresponding devices, and to provide a power source to the keyboard are inherent or obvious in the design of the most keyboard operated devices. With respect to power source disposed within the keyboard housing is a conventional and well known in the hand-held computer with keyboard, LCD screen with keyboard (for data input/output and functional operation with writing pad or touch pad) and wireless keyboard (work as a remote data input/output and function operating device for the computer) are available in commercial market, which is capable of operating from a self-contained power source such as a alkaline battery, rechargeable battery and solar power. Therefore, it would have been obvious to person of

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ordinary skill in the art at the time the invention was made to use a conventional and well known power source in the keyboard of Richardson to adding greater versatility to the keyboard.

3. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Richardson et al (US Patent # 4,762,435) in view of Applicant's admitted prior art (page 1, line 15-24 and page 2, line 1-9) as applied to claim 1 and 23 above, and further in view of Viletto (US Patent # 5,475,626). The combination of Richardson, Official notice and Applicant's admitted prior art does not show the keyboard housing including a recharger and rechargeable battery. Viletto teaches a computer system (31) including a display housing (33) and a keyboard housing (32), the keyboard housing including a rechargeable battery (88) and recharger (89 describe in column 3, line 35-58, fig 3). Therefore, it would have been obvious to person of ordinary skill in the art at the time the invention was made to use a recharger and rechargeable battery in the keyboard housing of Richardson and Applicant's admitted prior art as taught by Viletto to provide more power option to the keyboard.

Response to Arguments

4. Applicant's arguments filed 08/18/99 have been fully considered but they are not persuasive.

Regarding claims 1-8, 10-18 and 20-28; since Richardson and Applicant's admitted prior art are from same field of endeavor. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be

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established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Regarding claims 1, 17, 20, 22 and 24, in this case, examiner's interpretation of a computer is in its widest meaning i.e. to control, to compute and to communication between device in the apparatus. Richardson discloses a computer (10) including a keyboard (12), printer (11) and device (13, 14), the keyboard and device communicate with printer and to printing different size and shape letter on ribbon or tape, the computer (10) including improve interface system between the keyboard and the printer (column 2, line 33-35) to control the automatic operation of the apparatus. Richardson described in column 3, line 36-37 is a clear indication of any PDA devices in it's general application PDA device function in column 3, line 36-37.

Regarding claim 24, not only the provision of such dimply is merely a matter of design choice to show such assertion. Goodman teaches Icons (virtual key) are displayed in the PDA device (22), the PDA device (22) including a screen is written with an RF probe (23) to input commands and data, and also Applicant's admitted prior art (page 1, line 15-20) teaches a PDA device including a touch screen, controller and virtual key.

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Regarding claim 9 and 23, since Richardson, Applicant's admitted prior art and Viletto are from same field of endeavor. Viletto clearly teaches a keyboard housing (32) including a rechargeable battery (88) and recharger (89, describe in column 3, line 35-58, fig 3).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jagdish Patel whose telephone number is (703) 305-0930. The examiner can normally be reached on Monday through Thursday from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached at (703) 308-0079. Any inquiry of a general nature

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or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Patel

Jagdish Patel

August 30, 1999



Benjamin R. Fuller
Supervisory Patent Examiner
Technology Center 2800